Florida Department of Environmental Protection

Northeast District
7825 Baymeadows Way, Suite B200
Jacksonville, Florida 32256

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard Jr.
Secretary

Sent by Electronic Mail – Received Receipt Requested

PERMITTEE:

Maddox Foundry & Machine Works, Inc.	Air Permit No.:	001007-005-AO
13370 SW 170th Street	Issuance Date:	July 24, 2012
Archer, Florida 32618	Expiration Date:	July 24, 2017

Authorized Representative:

Ms. Monte M. Marchant

This permit authorizes the operation of the existing Maddox Foundry & Machine Works, Inc. facility which is a metal foundry (Standard Industrial Classification Nos. 3321 and 3325). The facility is located in Alachua County at 13370 SW 170th Street, Archer, Florida. The UTM coordinates of the facility are Zone 17, 434.0 km East and 3283.4 km North. Latitude: 29° 32′ 30″ North and Longitude: 82° 31′ 30″ West.

This final permit is organized by the following sections.

Section 1. General Information
Section 2. Administrative Requirements
Section 3. Emissions Unit Specific Conditions
Section 4. Appendices

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Jacksonville, Florida

Khalid Al-Nahdy July 24, 2012
Khalid Al-Nahdy, P. E. Date
District Air Program Administrator

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit) was sent by electronic mail (or a link to these documents made available electronically on a publicly accessible server) with received receipt requested before the close of business on July 24, 2012, to the persons listed below.

Mr. Chase A. Hope, V.P./C.O.O. (Email: chaseh@maddoxfoundry.com)

Clerk Stamp
FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), F.S., with the designated agency clerk, receipt of which is hereby acknowledged.

Shane Maghen July 24, 2012
(Clerk) (Date)

FACILITY DESCRIPTION

Existing Facility

Maddox Foundry & Machine Works, Inc. is a metal foundry that manufactures cast products such as hammers for hammermills, rock crushers, slurry pumps, ductile iron slurry pipe fittings, trommel screens, cast liners for rod or ball mills, and custom castings. The foundry manufactures two grades of steel, two grades of gray iron, two grades of ductile iron and high chrome iron. The foundry also manufactures aluminum and bronze castings.

Operations at this facility include melting scrap metal in an Electric Arc Furnace (EU 001), pouring the molten metal into molds, which are allowed to cool in the shape of the mold and then removed to ship or make a fabricated part or product.

Handcrafted wood or Styrofoam patterns are used to create a corresponding cavity in the casting material, i.e. form the molten metal into a given shape. Cores are shapes, which are made of sand, that are inserted into the mold to provide holes, voids, or tunnels in the finished casting.

A casting flask is a metal frame or a box without a bottom or lid. The flask is split into two halves the top, called a cope and the bottom, called a drag. Each half of the flask contains molding sand with either the top or the bottom half of the wood or Styrofoam pattern and the inserted cores. The two halves are stacked together thus forming the whole mold.

The molding sand, used in the casting flask, is made from a mixture of sand and a small amount of water-based, adhesive. The type of molding sand used, either green sand or acid sand, depends upon the desired casting product. Green sand, an aggregate of sand, bentonite clay, pulverized coal and water, is used for the larger castings Acid sand, is a finer grit sand that is used for cosmetic castings. Acid sand is also used to make cores at this foundry.

The molding sand is pumped from a 40 Ton storage silo using air pressure into large, batch mixers where the adhesive is added, and then fed into slingers for distribution onto the patterns held within the casting flask. The PM emissions from the sand silo during loading and unloading are controlled by the same Griffin Environmental Co., Inc., M1-864 baghouse that is used to control the PM emissions from the finished casting grinding booths operation (EU 003).

Approximately 90% of the flange cores made at the foundry are oven cured in a small, electric, oven, which is maintained at 150 – 200 degrees Fahrenheit. The molds made at the foundry are cured in the open-air buildings.

The metal used in the electric arc furnace is all scrap metal. It consists of purchased material or metal produced by the fabrication shop. The purchased metal does not require any degreasing by the foundry. The fabrication shop metal is cleaned with a pressure washer in the facility's containment area if needed prior to being charged in the electric arc furnace.

The electric arc furnace is outfitted with three (3) carbon electrodes, which are raised or lowered through the furnace roof. The electrodes must be retracted in order for the furnace roof to be rotated aside to allow the charge of the scrap metal by an overhead crane. The roof is returned over the furnace and an electric current is generated between the electrodes. This current produces heat through the electrodes and scrap metal, which in turn melts the scrap metal. During steel heats, oxygen is injected directly into the melt through a half-inch pipe to remove excess carbon.

Once melted, the nonmetallic impurities in the molten metal form a residue known as slag. Slag weighs less than the molten iron so it floats on top, which allows it to be removed by a combination of tipping the furnace backwards and pouring the slag out through a slag door as well as dragging the slag off the top of the molten metal. This foundry uses carbon and alumina silicate to aid in slag formation.

During refining, alloy elements may be added to produce the desired metallurgy. This stage occurs in the final few minutes before the tap hole is opened and the molten metal is poured out of the furnace into the holding bucket and ladle.

From the ladle, the molten metal is poured into the mold and allowed to cool. Once cooled, the castings are manually shaken out[1] of their molds to remove the loose sand from the casting followed by blasting with either steel shot or sand. The removed sand is recycled and reused as molding sand.

The particulate matter emissions generated from the sand blasting operation are not controlled. With the facility's self-imposed limitation on hours of operation, the potential particulate matter emissions from this operation are less than 5 tons per year. The particulate matter emissions generated from the steel shot blast machine are captured through a hood and routed to the Griffin Environmental Co., Inc., M1-864 baghouse.

The cooled casting is sent to the finishing process where it is cleaned with the pneumatic grinding equipment. The grinding area consists of 6 grinding booths. Each booth has a capture hood. Particulate matter emissions are captured through the hoods and routed to the Griffin Environmental Co., Inc., M1-864 baghouse.

At the back of the fabrication shop, cranes are used to paint the bottom side of an assembled "fabrication" (assembled castings) prior to delivery. A single employee using a single spray gun does this painting. The painting is done during the evening hours. Estimated potential VOC emissions from this activity are such that they are less than 5 tons per year. Estimated potential HAP emissions are less than 1,000 pounds per year for a single HAP and 2,500 pounds per year for total HAPs.

Emissions from the electric arc furnace are controlled using a fourth hole (direct shell) capture system followed by a Pangborn baghouse. Direct shell evacuation consists of ductwork attached to a separate or fourth hole in the furnace roof, which draws emissions via ductwork to the baghouse. This system works only when the furnace is up right with the roof in place. As

such, fugitive emissions generated during the charging, alloying, slag removal, and tapping operations are not controlled by the system. These fugitive emissions are subject to the General Opacity Standard of State Rule 62-296.320, F.A.C.

Aluminum and bronze castings are produced from purchased ingots in a 0.82 MMBtu/hr, diesel-fired, reverberatory furnace. The quantity of fuel fired is dependent upon whether bronze or aluminum is being melted, but is estimated to be approximately 6 gallons per hour and 300 – 600 gallons per year. Aluminum batches are estimated at 100 – 300 pounds per batch, while bronze batches are estimated to be 200- 500 pounds per batch. The facility produces 500 pounds of aluminum castings per year and 6,000 – 10,000 pounds of bronze castings in a given year. Alloys or metals are not added to the molten metal in order to achieve the desired metallurgy. The estimated potential emissions are such that they are less than 5 tons per year for criteria pollutants, less than 1,000 pounds per year for any individual HAP, and less than 2,500 pounds per year for total HAPs

This facility is regulated under Subpart ZZZZZ—National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources. Pursuant to 40 CFR 63.10880(b)(1), the source is existing as construction or reconstruction of the affected source commenced before September 17, 2007. Pursuant to 40 CFR 63.10880(f), the affected source is initially subject to the subpart requirements for a due to a facility metal melt production for calendar year 2008 of less than 20,000 tons.

The electric arc furnace is also regulated under State Rule 62-297.620(4), F.A.C. The 40 TPH Sand Silo is regulated under State Rule 62-297.620(4), F.A.C.

The existing facility consists of the following emission units.

Facility ID No. 0010007

EU ID No.	EP ID No.	Emission Unit Description
001	---	Whiting #6/MT Electric Arc Furnace controlled by a Pangborn 2-compartment Baghouse
---	01	Molding Sand Adhesives
003	---	Finished Casting Grinding Booths Operation controlled by a Griffin Environmental Co., Inc. 4-compartment Baghouse, Model M1-864. *This baghouse also controls emissions from Emission Points 01, and 03.*
---	01	40 Ton storage Silo controlled by the Griffin Environmental Co., Inc. 4-compartment Baghouse, Model M1-864
---	02	Sand Blasting Operation *(uncontrolled)*
---	03	Steel Blast Machine controlled by the Griffin Environmental Co., Inc. 4-compartment Baghouse, Model M1-864

FACILITY REGULATORY CATEGORIES

- The facility is a not major source of hazardous air pollutants (HAP).
- The facility has no units subject to the acid rain provisions of the Clean Air Act.
- The facility is not a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is not a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

RELEVANT DOCUMENTS

The documents listed below are the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

Application for Non-Title V Air Permit Renewal received June 19, 2012

[1]The facility includes an automated shakeout system consisting of a primary shaker table with a conveyor belt system, however it is not operated by the facility. Estimated potential particulate matter emissions from this activity are such that the operation of the automated shakeout system would qualify for the Generic Emission Unit Exemption of Rule 62-210.300(3)(b)1., F.A.C.

SECTION 2. ADMINSITRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Northeast District Air Program, Florida Department of Environmental Protection (Department). The Northeast District's mailing address is 7825 Baymeadows Way, Suite B200, Jacksonville, Florida 32256-7590. All documents related to applications for permits to operate an emissions unit shall be submitted to the Northeast District.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the North East District Office. The mailing address and phone number of the District Office is: 7825 Baymeadows Way, Suite B200, Jacksonville, Florida 32256. The Permitting Authority's telephone number is 904/256-1700.

3. Appendices: The following Appendices are attached as part of this permit:

   a. Appendix A. Citation Formats and Glossary of Common Terms;
   b. Appendix B. General Conditions;
   c. Appendix C. Common Conditions; and
   d. Appendix D. Common Testing Requirements.
   e. Appendix E. State Rule 62-210.200, F.A.C. – Definitions of Construction and Modification
   f. Appendix F. Federal Regulation, 40 CFR 60.2, 40 CFR 60.14, 40 CFR 60.15
   g. Appendix 40 CFR 63 Subpart A – General Provisions
   h. Appendix 40 CFR 63 Subpart ZZZZZ - National Emissions Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time.

   [Rule 62-4.080, F.A.C.]

6. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification.

   [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

7. Automated Shakeout System – Startup Notification. The permittee shall provide written notification to the Department prior initial startup and the operation of the automated shakeout system. Such notification shall be postmarked at least 15 days prior to the initial startup of the emissions unit.

   [Rule 62-4.070(3), F.A.C.]

8. A completed **Application for Non Title V Air Permit Renewal** [DEP Form No. 62-210.900(4)] shall be submitted to the Department at least 60 days prior to the expiration date of this operation permit. To properly apply for an operation permit, the permittee shall submit the appropriate application form, processing fee, and compliance test reports as required by this permit.

   [Rules 62-4.055 and 62-4.220, F.A.C.]

This section of the permit addresses the following emissions unit.

Emissions Unit	Emissions Unit Description
001	Whiting #6/MT, 7'3" Alternate Current Electric Arc Furnace. Serial Number 275. Maximum capacity is 10,000 pounds. The EAF operates off the main power supply of 12,500 volts, 1,500 kW/Hr or 5.118 MMBtu/Hr. Originally constructed in 1963 or prior. Air Pollution Control Equipment: One (1) Pangborn 2 compartment Baghouse. Serial Number 72-175-1-03-01 Gas Volume.....…18,000 ACFM Gas Temperature.....120 °F Removal efficiency …….estimated to be 98%

Emission Point	Emission Point Description
01	Molding Sand Operation. No Control Device

{Permitting notes: This emissions unit is regulated under: Rule 296.320(4)(b)1., F.A.C.; 40 CFR 63 Subpart ZZZZZ- National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Source**s**, adopted and incorporated by reference in Rule 62-204.800, F.A.C., *In accordance with the definitions of this subpart, this emissions unit is classified as an existing small foundry. This subsection of the permit contains the 40 CFR 63 Subpart ZZZZZ standards applicable to existing small foundries. Should the foundry be reclassified, the applicable 40 CFR 63 Subpart ZZZZZ standards are stated in Appendix of this permit*}

PERFORMANCE RESTRICTIONS

A.1. Electric Arc Furnace Repairs. This operation permit does not authorize repairs to the Electric Arc Furnace, including its components, such that construction, reconstruction, or modification as defined by federal or state regulations occurs.

Electric arc furnace (EAF) means a furnace that produces molten steel and heats the charge materials with electric arcs from carbon electrodes.

For the purposes of this permit condition, consistent with the Subpart definition, an EAF shall consist of the furnace shell and roof and the transformer. [40 CFR 60.270a]

State and Federal definitions of construction, reconstruction, and modification are found in State Rule 62-210.200, F.A.C., federal regulations 40 CFR 60 Subpart A (§60.2), and 40 CFR 63 Subpart A (§63.2). Additional requirements for modification and reconstruction are found in State Rule 62-210.300, F.A.C. (See Section 2. Administrative Requirements Condition #6), and federal regulations 40 CFR 60 Subpart A (§§60.14 and 60.15). Referenced definitions and regulations are attached as appendices of this permit.

[40 CFR 60.270a, Rule 62-4.070, F.A.C.]

A.2. Electric Arc Furnace - Permitted Capacity. The Electric Arc Furnace shall be charged with only scrap metal consisting of iron and steel. The maximum charging rate shall not exceed 7,500 pounds per heat*. All scrap material shall be weighed prior to being charged in the furnace.

* Basis 7,500 lb/heat; 9 heats/week, 50 weeks/year.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Operation Permit Application information dated 6/18/03]

A.3. Molding Sand Operation–Capacity. The nominal sand usage rate for the preparation of molds and cores is 3,240 pounds per hour. The nominal molding sand adhesives usage rates used in this process are stated below:

Molding Sand Adhesive	**Annual Usage**
Ramset 7000	3960 gallons
Ramset 7109	330 gallons
Green Hornet	25 gallons
Ramset 7185	110 gallons

Permitting Note: Based on application information submitted March 23, 2007. This information is for informational purposes only and is not to be construed as a maximum usage permit limit. This information should be used, along with that in Specific Condition Nos. 26. and 27., to track VOC, individual HAP, and total HAPs from this activity for Potential To Emit (PTE) purposes.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C., Operation Permit Application information dated 3/23/07]

A.4. Hours of Operation- Electric Arc Furnace: The hours of operation for the Electric Arc Furnace are limited to no more than 8 H/D; 5 D/W, 52 W/Y and 2,080 H/Y. The hours that these operations are in operation shall be recorded and maintained by the facility.

[Rules 62-4.160(2) & (14)(b), 62-210.200(PTE), F.A.C., Definitions- Potential to Emit (PTE); Operation Permit No. 0010007-002-AO]

A.5. NESHAP, 40 CFR 63 Subpart ZZZZZ Applicability: This facility is an iron steel foundry and shall comply with applicable provisions of 40 CFR 63 Subpart ZZZZZ. The facility is classified as an existing, small foundry.

Iron and steel foundry means a facility or portion of a facility that melts scrap, ingot, and/or other forms of iron and/or steel and pours the resulting molten metal into molds to produce final or near final shape products for introduction into commerce. Research and development facilities, operations that only produce non-commercial castings, and operations associated with nonferrous metal production are not included in this definition.

Specific Condition No. A.5. Continued:

Small foundry means, for an existing affected source, an iron and steel foundry that has an annual metal melt production of 20,000 tons or less. For a new affected source, *small foundry* means an iron and steel foundry that has an annual metal melt capacity of 10,000 tons or less.

[40 CFR 63.10906(def); 63.10880(a), 63.10880(b)(1), 63.10880(f)]

A.6. 40 CFR 63, Subpart A-General Provision: You must comply with the following requirements of the General Provisions (40 CFR part 63, subpart A): §§63.1 through 63.5; §63.6(a), (b), (c), and (e)(1); §63.9; §63.10(a), (b)(1), (b)(2)(xiv), (b)(3), (d)(1), (d)(4), and (f); and §§63.13 through 63.16. Requirements of the General Provisions not cited in the preceding sentence do not apply to the owner or operator of a new or existing affected source that is classified as a small foundry.

[40 CFR 63.10890(i)]

A.7. NESHAP, 40 CFR 63 Subpart ZZZZZ -Small Foundry Reclassification: If the annual metal melt production of your small foundry exceeds 20,000 tons during the preceding calendar year, you must submit a notification of foundry reclassification to the Administrator within 30 days and comply with the requirements in paragraphs (i) or (ii) of this condition below, as applicable:

(i) If your small foundry has never been classified as a large foundry, you must comply with the requirements for a large foundry no later than 2 years after the date of your foundry's notification that the annual metal melt production exceeded 20,000 tons.

(ii) If your small foundry had previously been classified as a large foundry, you must comply with the requirements for a large foundry no later than the date of your foundry's most recent notification that the annual metal melt production exceeded 20,000 tons.

[40 CFR 63.10881(d)(1)]

A.8. NESHAP, 40 CFR 63 Subpart ZZZZZ -Small Foundry Reclassification: If your small foundry subsequently becomes a large foundry, you must comply with the requirements for a large foundry for at least 3 years before reclassifying your facility as a small foundry, even if your annual metal melt production falls below 20,000 tons. After 3 years, you may reclassify your facility as a small foundry provided your annual metal melt production for the preceding calendar year was 20,000 tons or less. If you reclassify your large foundry as a small foundry, you must submit a notification of reclassification to the Administrator within 30 days and comply with the requirements for a small foundry no later than the date you notify the Administrator of the reclassification. If the annual metal melt production exceeds 20,000 tons during a subsequent year, you must submit a notification of reclassification to the Administrator within 30 days and comply with the requirements for a large foundry no later than the date you notify the Administrator of the reclassification.

[40 CFR 63.10881(d)(2)]

A.9. NESHAP, 40 CFR 63 Subpart EEEEE Applicability: If your iron and steel foundry becomes a major source as defined in §63.2, you must meet the requirements of 40 CFR part 63, subpart EEEEE.

Major source means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

[40 CFR 63.10880(c), 40 CFR 63.2(Major source definition)]

EMISSIONS STANDARDS

{Permitting Note: Unless otherwise specified, the averaging times for these conditions are based on the specified averaging time of the applicable test method.}

A.10. Electric Arc Furnace- Baghouse Controlled Visible Emissions. The Pangborn baghouse shall be operated such that Visible emissions from the electric arc furnace shall not exceed 5 percent opacity. This opacity is applicable when the furnace is up right with the roof in place.

[Rule 62-297.620(4), F.A.C.; Rule 62-4.070(3), F.A.C]

A.11. Electric Arc Furnace-Fugitive Visible Emissions. Visible emissions from this emissions unit, when the furnace is not up right or the roof is retracted, shall be less than 20 percent opacity.

[Rule 62-296.320(4)(b) 1., F.A.C.; Rule 62-4.070(3), F.A.C]

TEST METHODS AND PROCEDURES

A.12. Electric Arc Furnace- Baghouse Controlled Visible Emissions. The Visible Emissions test method shall be EPA Method 9, incorporated in Chapter 62-297, F.A.C. The test shall be conducted by an observer certified in accordance with the requirements of Rule 62-297.320, F.A.C. – Standards for Persons Engaged in Visible Emissions Observations. This compliance test shall be conducted on an annual basis, at least once each federal fiscal year (October 1 – September 30).

[Rules 62-297.310(7)(a)4.a., F.A.C., 62-297.320, F.A.C.]

A.13. EPA Method 9- Required Sampling Time. The required minimum period of observation for each compliance test shall be thirty (30) minutes or, if the operation is normally completed in less than 30 minutes and does not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.

[Rules 62-297.310(4)(a)2 and (4)(a)2.a., F.A.C.]

A.14. Compliance Test Procedures. Compliance test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

[Rule 62-4.070(3), F.A.C.]

MANAGEMENT PRACTICES AND COMPLIANCE REQUIREMENTS

A.15. You must comply with the pollution prevention management practices for metallic scrap and mercury switches in Conditions A.21. and A.22. and binder formulations in Condition A.23.

[40 CFR 63.10890(a)]

A.16. As required by §63.10(b)(1), you must maintain files of all information (including all reports and notifications) for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

[40 CFR 63.10890(d)]

A.17. You must maintain records of the information specified in paragraphs (1) through (7) of this condition according to the requirements in §63.10(b)(1).

(1) Records supporting your initial notification of applicability and your notification of compliance status according to §63.10(b)(2)(xiv).

(2) Records of your written materials specifications according to Condition A.21. and records that demonstrate compliance with the requirements for restricted metallic scrap in Condition A.21.(1) and/or for the use of general scrap in Condition A.21.(2) and for mercury in Condition A.22.(1) through (3), as applicable. You must keep

Specific Condition No. A.17. Continued:

records documenting compliance with Condition A.22.(4) for scrap that does not contain motor vehicle scrap.

(3) If you are subject to the requirements for a site-specific plan for mercury switch removal under Condition A.22.(1), you must:

(i) Maintain records of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, and an estimate of the percent of mercury switches recovered; and

(ii) Submit semiannual reports of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and a certification that the recovered mercury switches were recycled at RCRA-permitted facilities. The semiannual reports must include a certification that you have conducted periodic inspections or taken other means of corroboration as required under Condition A.22.(1)(ii)(C). You must identify which option in paragraph Condition A.22. applies to each scrap provider, contract, or shipment. You may include this information in the semiannual compliance reports required under Condition A.18.

(4) If you are subject to the option for approved mercury programs under Condition A.22.(2), you must maintain records identifying each scrap provider and documenting the scrap provider's participation in an approved mercury switch removal program. If you purchase motor vehicle scrap from a broker, you must maintain records identifying each broker and documentation that all scrap provided by the broker was obtained from other scrap providers who participate in an approved mercury switch removal program.

(5) Records to document use of binder chemical formulation that does not contain methanol as a specific ingredient of the catalyst formulation for each furfuryl alcohol warm box mold or core making line as required by Condition A.23. These records must be the Material Safety Data Sheet (provided that it contains appropriate information), a certified product data sheet, or a manufacturer's hazardous air pollutant data sheet.

(6) Records of the annual quantity and composition of each HAP-containing chemical binder or coating material used to make molds and cores. These records must be copies of purchasing records, Material Safety Data Sheets, or other documentation that provides information on the binder or coating materials used.

(7) Records of metal melt production for each calendar year.

[40 CFR 63.10890(e)]

A.18. You must submit semiannual compliance reports to the Administrator according to the requirements in §63.10(e). The report must clearly identify any deviation from the pollution prevention management practices in Condition Nos. A.21. and A.22. or A.23. (§63.10885 or §63.10886) and the corrective action taken.

[40 CFR 63.10890(f)]

A.19. You must submit a written notification to the Administrator for any reclassification of the foundry as required in Condition A.7.

[40 CFR 63.10890(g)]

A.20. Following the initial determination for an existing affected source as a small foundry, if the annual metal melt production exceeds 20,000 tons during the preceding year, you must comply with the requirements for large foundries by the applicable dates in Condition No. A.7.(i) or (ii).

[40 CFR 63.10890(h)]

POLLUTION PREVENTION MANAGEMENT PRACTICES

A.21. Metallic scrap management program: For each segregated metallic scrap storage area, bin or pile, you must comply with the materials acquisition requirements in paragraph (1) or (2) of this Condition.

You must keep a copy of the material specifications onsite and readily available to all personnel with material acquisition duties, and provide a copy to each of your scrap providers. You may have certain scrap subject to paragraph (1) of this condition and other scrap subject to paragraph (2) of this condition at your facility provided the metallic scrap remains segregated until charge make-up.

(1) *Restricted metallic scrap*. You must prepare and operate at all times according to written material specifications for the purchase and use of only metal ingots, pig iron, slitter, or other materials that do not include post-consumer automotive body scrap, post-consumer engine blocks, post-consumer oil filters, oily turnings, lead components, chlorinated plastics, or free liquids. For the purpose of this subpart, "free liquids" is defined as material that fails the paint filter test by EPA Method 9095B, "Paint Filter Liquids Test" (revision 2), November 2004 (incorporated by reference—see §63.14). The requirements for no free liquids do not apply if the owner or operator can demonstrate that the free liquid is water that resulted from scrap exposure to rain.

Specific Condition No. A.21. Continued:

(2) *General iron and steel scrap.* You must prepare and operate at all times according to written material specifications for the purchase and use of only iron and steel scrap that has been depleted (to the extent practicable) of organics and HAP metals in the charge materials used by the iron and steel foundry. The materials specifications must include at minimum the information specified in paragraph (2)(i) or (ii) of this condition.

(i) Except as provided in paragraph (2)(ii) of this condition, specifications for metallic scrap materials charged to a scrap preheater or metal melting furnace to be depleted (to the extent practicable) of the presence of used oil filters, chlorinated plastic parts, accessible lead-containing components (such as batteries and wheel weights), and a program to ensure the scrap materials are drained of free liquids.

(ii) For scrap charged to a cupola metal melting furnace that is equipped with an afterburner, specifications for metallic scrap materials to be depleted (to the extent practicable) of the presence of chlorinated plastics, accessible lead-containing components (such as batteries and wheel weights), and a program to ensure the scrap materials are drained of free liquids.

[40 CFR 63.10885(a)]

A.22. Mercury requirements: **For scrap containing motor vehicle scrap**, you must procure the scrap pursuant to one of the compliance options in paragraphs (1), (2), or (3) of this condition for each scrap provider, contract, or shipment.

For scrap that does not contain motor vehicle scrap, you must procure the scrap pursuant to the requirements in paragraph (4) of this condition for each scrap provider, contract, or shipment.

You may have one scrap provider, contract, or shipment subject to one compliance provision and others subject to another compliance provision.

(1) Site-specific plan for mercury switches. You must comply with the requirements in paragraphs (1)(i) through (v) of this condition.

(i) You must include a requirement in your scrap specifications for removal of mercury switches from vehicle bodies used to make the scrap.

(ii) You must prepare and operate according to a plan demonstrating how your facility will implement the scrap specification in paragraph (1)(i) of this condition for removal of mercury switches. You must submit the plan to the Administrator for approval. You must operate according to the plan as submitted during the review and approval process, operate according to the approved plan at all times after approval, and address any deficiency identified by the Administrator or delegated authority within 60 days following disapproval of a plan. You may request approval to revise the plan and may operate according to the revised plan unless and until the

Specific Condition No. A.22. Continued:

revision is disapproved by the Administrator or delegated authority. The Administrator or delegated authority may change the approval status of the plan upon 90-days written notice based upon the semiannual report or other information.

The plan must include:

(A) A means of communicating to scrap purchasers and scrap providers the need to obtain or provide motor vehicle scrap from which mercury switches have been removed and the need to ensure the proper management of the mercury switches removed from the scrap as required under the rules implementing subtitle C of the Resource Conservation and Recovery Act (RCRA) (40 CFR parts 261 through 265 and 268). The plan must include documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles. Upon the request of the Administrator or delegated authority, you must provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols;

(B) Provisions for obtaining assurance from scrap providers' motor vehicle scrap provided to the facility meet the scrap specification;

(C) Provisions for periodic inspections or other means of corroboration to ensure that scrap providers and dismantlers are implementing appropriate steps to minimize the presence of mercury switches in motor vehicle scrap and that the mercury switches removed are being properly managed, including the minimum frequency such means of corroboration will be implemented; and

(D) Provisions for taking corrective actions (i.e., actions resulting in scrap providers removing a higher percentage of mercury switches or other mercury-containing components if needed, based on the results of procedures implemented in paragraph (1)(ii)(C) of this condition).

(iii) You must require each motor vehicle scrap provider to provide an estimate of the number of mercury switches removed from motor vehicle scrap sent to the facility during the previous year and the basis for the estimate. The Administrator may request documentation or additional information at any time.

(iv) You must establish a goal for each scrap supplier to remove at least 80 percent of the mercury switches. Although a site-specific plan approved under paragraph(1) of this condition may require only the removal of convenience light switch mechanisms, the Administrator will credit all documented and verifiable mercury-containing components removed from motor vehicle scrap (such as sensors in anti-locking brake systems, security systems, active ride control, and other applications) when evaluating progress towards the 80 percent goal.

Specific Condition No. A.22. Continued:

(v) For each scrap provider, you must submit semiannual progress reports to the Administrator that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches removed, and certification that the removed mercury switches were recycled at RCRA-permitted facilities or otherwise properly managed pursuant to RCRA subtitle C regulations referenced in paragraph (1)(ii)(A) of this condition. This information can be submitted in aggregate form and does not have to be submitted for each shipment. The Administrator may change the approval status of a site-specific plan following 90-days notice based on the progress reports or other information.

(2) *Option for approved mercury programs*. You must certify in your notification of compliance status that you participate in and purchase motor vehicle scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the Administrator based on the criteria in paragraphs (2)(i) through (iii) of this condition. If you purchase motor vehicle scrap from a broker, you must certify that all scrap received from that broker was obtained from other scrap providers who participate in a program for the removal of mercury switches that has been approved by the Administrator based on the criteria in paragraphs (2)(i) through (iii) of this condition. The National Mercury Switch Recovery Program and the State of Maine Mercury Switch Removal Program are EPA-approved programs under paragraph (2) of this condition unless and until the Administrator disapproves the program (in part or in whole) under paragraph (2)(iii) of this condition.

(i) The program includes outreach that informs the dismantlers of the need for removal of mercury switches and provides training and guidance for removing mercury switches;

(ii) The program has a goal to remove at least 80 percent of mercury switches from motor vehicle scrap the scrap provider processes. Although a program approved under paragraph (2) of this condition may require only the removal of convenience light switch mechanisms, the Administrator will credit all documented and verifiable mercury-containing components removed from motor vehicle scrap (such as sensors in anti-locking brake systems, security systems, active ride control, and other applications) when evaluating progress towards the 80 percent goal; and

(iii) The program sponsor agrees to submit progress reports to the Administrator no less frequently than once every year that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and certification that the recovered mercury switches were recycled at facilities with permits as required under the rules implementing subtitle C of RCRA

Specific Condition No. A.22. Continued:

(40 CFR parts 261 through 265 and 268). The progress reports must be based on a database that includes data for each program participant; however, data may be aggregated at the State level for progress reports that will be publicly available. The Administrator may change the approval status of a program or portion of a program (e.g., at the State level) following 90-days notice based on the progress reports or on other information.

(iv) You must develop and maintain onsite a plan demonstrating the manner through which your facility is participating in the EPA-approved program.

(A) The plan must include facility-specific implementation elements, corporate-wide policies, and/or efforts coordinated by a trade association as appropriate for each facility.

(B) You must provide in the plan documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal or mercury switches from end-of-life vehicles. Upon the request of the Administrator or delegated authority, you must provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols.

(C) You must conduct periodic inspections or other means of corroboration to ensure that scrap providers are aware of the need for and are implementing appropriate steps to minimize the presence of mercury in scrap from end-of-life vehicles.

(3) *Option for specialty metal scrap*. You must certify in your notification of compliance status and maintain records of documentation that the only materials from motor vehicles in the scrap are materials recovered for their specialty alloy (including, but not limited to, chromium, nickel, molybdenum, or other alloys) content (such as certain exhaust systems) and, based on the nature of the scrap and purchase specifications, that the type of scrap is not reasonably expected to contain mercury switches.

(4) *Scrap that does not contain motor vehicle scrap*. For scrap not subject to the requirements in paragraphs (1) through (3) of this condition, you must certify in your notification of compliance status and maintain records of documentation that this scrap does not contain motor vehicle scrap.

Permitting Note: The applicant states in the initial notification received June 5, 2009, the facility does not use motor vehicle scrap.

[40 CFR 63.10885(b)]

BINDER FORMULATIONS MANAGEMENT PRACTICES

A.23. For each furfuryl alcohol warm box mold or core making line at a new or existing iron and steel foundry, you must use a binder chemical formulation that does not use methanol as a specific ingredient of the catalyst formulation. This requirement does not apply to the resin portion of the binder system.

Permitting Note: The applicant states in the initial notification received June 5, 2009, the facility does not operate a furfuryl alcohol warm box mold or core making line.

[40 CFR 63.10886]

NOTIFICATIONS, RECORDS, AND REPORTS

A.24. Compliance Test Notification. At least 15 days prior the date on which each formal compliance test is due to begin, the permittee shall provide written notification of the test to the Air Compliance Section of this Office. The notification must include the following information: the date, time, and location of each test; the name and telephone number of the facility's contact person who will be responsible for coordinating the test; and the name, company and telephone number of the person conducting the test.

[Rule 62-297.310(7)(a)9., F.A.C.]

A.25. Control Devices Operation and Maintenance Plan. The baghouses shall be maintained in accordance with the Operation and Maintenance Plan submitted August 31, 2006. All activities shall be performed as scheduled and recorded. This information shall be retained for at least 3 years from the date of measurement or recording, and be readily assessable for onsite review by the Department.

[Rule 62-4.070(3), F.A.C.; Rule 62-4.160(7), F.A.C., Rule 62-4.160(14)(b), F.A.C.]

A.26. Operations and Processing Rate Records. In order to demonstrate compliance with the requirements in Specific Condition Nos. A.2. through A.4. of this permit, the permittee shall maintain a log at the facility of the following:

(a) The annual quantity of scrap metal charged to Electric Arc Furnace

(b) Hours of Operation of Electric Arc Furnace

(c) The core and mold sand handling rate

This information shall be retained for at least 3 years from the date of measurement or recording, and be readily assessable for onsite review by the Department.

[Rule 62-4.070(3), F.A.C.; Rule 62-4.160(7), F.A.C., Rule 62-4.160(14)(b), F.A.C.]

A.27. VOC and HAP Emissions Records – Mold Sand Adhesives. The permittee shall maintain a record of the rolling, consecutive, 12-month total emissions of VOC, each individual HAP, and total HAPs for the adhesives used in the Mold Sand Operation. These pollutant emissions shall be determined by material balance calculations using the vendor supplied MSDS for the adhesive, the highest value in the range of pollutant content stated in the MSDS, the assumption that 100% of the pollutant contained in the adhesive is emitted, and the amount of adhesive purchased (as documented through purchase receipts, beginning and ending inventory records, and the amount of disposed adhesives).

[Rule 62-4.070(3), F.A.C., Rule 62-210.370(2)(c), F.A.C.]

A.28. Reporting. The permittee shall submit a report of the information required in Specific Condition Nos. A.26. and A.27. with the Application for Non-Title V Air Permit Renewal.

[Rule 62-4.070(3), F.A.C.]

This section of the permit addresses the following emissions unit.

Emissions Unit	Emissions Unit Description
003	Finished Casting Grinding Booth Operation Air Pollution Control Equipment: One (1) Griffin Environmental Co, Inc. 4 compartment Baghouse, Model M1-864 Gas Volume.....32,000 ACFM Gas Temperature.....Ambient Removal efficiency ……estimated to be 99% or greater

Emission Point	Emission Point Description
01	40 TPH Sand Silo (capacity) Air Pollution Control Equipment: Griffin Environmental Co, Inc. Baghouse described above.
02	Sand Blasting Operation. No Control Device
03	Steel Shot Blast Machine Operation (Pangborn) Air Pollution Control Equipment: Griffin Environmental Co, Inc. Baghouse described above.

PERFORMANCE RESTRICTIONS

B.1. 40 TPH Sand Silo – Permitted Capacity. The nominal loading rate of the sand silo is 40 tons per hour.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; 9/13/06 Site-inspection information]

B.2. Finished Casting Grinding Booths Operation - Permitted Capacity. The nominal process rate is 625 tons per year of finished castings.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Operation Permit Application information dated 5/6/03]

B.3. Hours of Operation – Finished Casting Grinding Booths Operation: The hours of operation for the Finished Casting Grinding Booths Operation are limited to no more than 16 H/D; 5 D/W, 52 W/Y and 4,160 H/Y. The hours that this activity is in operation shall be recorded and maintained by the facility.

[Rules 62-4.160(2) & (14)(b), 62-210.200(PTE), F.A.C., Definitions- Potential to Emit (PTE); Operation Permit No. 0010007-002-AO]

B.4. Hours of Operation – Sand Blasting & Steel Shot Blast Machine Operations: The hours of operation for both the Sand Blasting Operation and the Steel Shot Blast Machine are limited to no more than 9 H/D; 5 D/W, 52 W/Y and 2,340 H/Y. The hours that these activities are in operation shall be recorded and maintained by the facility.

[Rules 62-4.160(2) & (14)(b), 62-210.200(PTE), F.A.C., Definitions- Potential to Emit (PTE); Application information dated 3/23/07]

EMISSIONS STANDARDS

{Permitting Note: Unless otherwise specified, the averaging times for these conditions are based on the specified averaging time of the applicable test method.}

B.5. Finished Casting Grinding Booths Operation -Visible Emissions. The Griffin Environmental Co, Inc. baghouse shall be operated such that Visible emissions from this emissions unit shall not exceed 5 percent opacity.

[Rule 62-297.620(4), F.A.C.; Rule 62-4.070(3), F.A.C.]

B.6. 40 TPH Sand Silo –Visible Emissions. Visible emissions from this emissions unit, during loading and unloading, shall not exceed 5 percent opacity.

[Rule 62-297.620(4), F.A.C.]

B.7. Finished Casting Grinding Booths Operation -Visible Emissions. The Visible Emissions test method shall be EPA Method 9, incorporated in Chapter 62-297, F.A.C. The test shall be conducted by an observer certified in accordance with the requirements of Rule 62-297.320, F.A.C. – Standards for Persons Engaged in Visible Emissions Observations. This compliance test shall be conducted on an annual basis, at least once each federal fiscal year (October 1 – September 30). The compliance test shall be conducted while the Finished Casting Grinding Booths Operation is operating under its normal operating conditions, i.e. with a minimum of 2 –6 booths in operation.

[Rule 62-297.310(7)(a)4.a., F.A.C.]

B.8. EPA Method 9- Required Sampling Time. The required minimum period of observation for each compliance test shall be thirty (30) minutes or, if the operation is normally completed in less than 30 minutes and does not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.

[Rules 62-297.310(4)(a)2 and (4)(a)2.a., F.A.C.]

B.9. Compliance Test Procedures. Compliance test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

[Rule 62-4.070(3), F.A.C.]

NOTIFICAITONS, RECORDS, AND REPORTS

B.10. Compliance Test Notification. At least 15 days prior the date on which each formal compliance test is due to begin, the permittee shall provide written notification of the test to the Air Compliance Section of this Office. The notification must include the following information: the date, time, and location of each test; the name and telephone number of the facility's contact person who will be responsible for coordinating the test; and the name, company and telephone number of the person conducting the test.

[Rule 62-297.310(7)(a)9., F.A.C.]

B.11. Control Devices Operation and Maintenance Plan. The baghouses shall be maintained in accordance with the Operation and Maintenance Plan submitted August 31, 2006. All activities shall be performed as scheduled and recorded. This information shall be retained for at least 3 years from the date of measurement or recording, and be readily assessable for onsite review by the Department.

[Rule 62-4.070(3), F.A.C.; Rule 62-4.160(7), F.A.C., Rule 62-4.160(14)(b), F.A.C.]

B.12. Operations and Processing Rate Records. In order to demonstrate compliance with the requirements in Specific Condition Nos. B.1. through b.4. of this permit, the permittee shall maintain a log at the facility of the following:

(a) Hours of Operation of Sand/Steel shot blasting
(b) A rolling, consecutive twelve- month total of Sand used in the Sand blasting operation, as determined from inventory records on a monthly basis
(c) A rolling, consecutive twelve- month total of Steel shot used in the Steel shot blast machine operation, as determined from inventory records on a monthly basis
(d) Hours of Operation of Finished Casting Grinding Booths Operation

Specific Condition No. B.12. Continued:

This information shall be retained for at least 3 years from the date of measurement or recording, and be readily assessable for onsite review by the Department.

[Rule 62-4.070(3), F.A.C.; Rule 62-4.160(7), F.A.C., Rule 62-4.160(14)(b), F.A.C.]

B.13. Reporting. The permittee shall submit a report of the information required in Specific Condition No. B.12. with the Application for Non-Title V Air Permit Renewal.

[Rule 62-4.070(3), F.A.C.]